

Claims

1.

1 A method of making a preform assembly, which includes the steps of:
2 (a) providing a preform having a closed end,
3 (b) providing an attachment object having a ring, and
4 (c) assembling said attachment object to said preform by telescoping said ring
5 over said closed end until said ring is brought into abutting engagement with a portion of said
6 preform in such a way that interference between said ring and said portion of said preform prevents
7 dislodgement or removal of said attachment object during subsequent processing of the preform
8 assembly.

2.

1 The method set forth in claim 1 wherein said ring is circumferentially continuous or
2 circumferentially split.

3.

1 The method set forth in claim 1 wherein said step (c) is carried out by interference
2 press fit between said ring and said preform.

4.

1 The method set forth in claim 3 wherein said preform has an angulated surface
2 portion, and said ring is press fit onto said angulated surface portion of said body.

5.

1 The method set forth in claim 3 wherein said body has a cylindrical portion and said
2 ring is press fit onto said cylindrical portion.

6.

1 The method set forth in claim 1 wherein said step (b) is carried out by securing said
2 ring over one or more external retention features on said preform.

7.

1 The method set forth in claim 6 wherein said step (a) includes pressure molding a
2 preform having at least one integrally molded external retention feature, and wherein said step (b)
3 is carried out by telescopically fitting said ring over said closed end and over said retention feature.

8.

1 A method of making a preform assembly for blow molding a container, which
2 includes the steps of:
3 (a) pressure molding a preform having a body and a finish with a flange and a
4 protrusion adjacent to and spaced from said flange,

- 5 (b) providing an attachment object having a ring, and
6 (c) mounting said attachment object to said preform by moving said ring over said
7 protrusion so that said ring is captured between said protrusion and said flange.

9.

1 The method set forth in claim 8 wherein said ring has an inner diameter that is less
2 than the outer diameter of said protrusion, and wherein said step (c) includes resiliently expanding
3 said ring by passage over said protrusion such that said ring is received by snap fit between said
4 protrusion and said flange.

10.

1 The method set forth in claim 9 wherein said outer diameter of said protrusion tapers
2 toward said preform body for resiliently expanding said ring as said ring is received over said
3 protrusion.

11.

1 The method set forth in claim 9 wherein said protrusion is selected from the group
2 consisting of a retention bead and an array of retention gussets.

12.

1 The method set forth in claim 9 wherein said attachment object is selected from the
2 group consisting of a handle, a label and a shroud.

13.

1 The method set forth in claim 9 including the step of: (d) blow molding said preform
2 body to form a container to which said attachment object is secured.

14.

1 A method of making a preform assembly for blow molding a container, which
2 includes the steps of:
3 (a) providing a preform having a body with a closed end,
4 (b) providing an attachment object having a ring, and
5 (c) mounting said attachment object to said preform by moving said ring over said
6 closed end and bringing said ring into interference press fit with an outer surface of said preform.

15.

1 The method set forth in claim 14 wherein said preform has a portion with a tapering
2 outer surface, and wherein said step (c) includes bringing said ring into interference fit with said
3 tapering outer surface.

16.

1 The method set forth in claim 14 wherein said preform has a portion with a cylindrical
2 outer surface, and wherein said step (c) includes bringing said ring into interference fit with said
3 cylindrical outer surface.

17.

1 The method set forth in claim 14 wherein said ring is circumferentially continuous
2 or circumferentially split.

18.

1 A method of blow molding a hollow plastic container with attached object, which
2 includes the steps of:

- 3 (a) pressure molding a preform having a body and a finish with a flange and a
4 protrusion adjacent to and spaced from said flange,
5 (b) providing an attachment object having a ring,
6 (c) mounting said attachment object to said preform by moving said ring over said
7 protrusion so that said ring is captured between said protrusion and said capping flange, and
8 (d) blow molding said preform body to form a container having said attachment
9 object attached thereto.

19.

1 The method set forth in claim 18 wherein said ring has an inner diameter that is less
2 than the outer diameter of said protrusion, and wherein said step (c) includes resiliently expanding
3 said ring by passage over said protrusion such that said ring is received by snap fit between said
4 protrusion and said flange.

20.

1 The method set forth in claim 19 wherein said outer diameter of said protrusion tapers
2 toward said preform body for resiliently expanding said ring as said ring is received over said
3 protrusion.

21.

1 The method set forth in claim 19 wherein said protrusion is selected from the group
2 consisting of a retention bead and an array of retention gussets.

22.

1 A preform assembly for blow molding a hollow plastic container and constructed in
2 accordance with the method set forth in claim 9.

23.

1 A blow molded hollow plastic container constructed in accordance with the method
2 set forth in claim 19.

24.

1 A preform assembly that includes:
2 a preform and an attachment object,
3 said attachment object having a circumferentially continuous or circumferentially split
4 ring in abutting external engagement with a portion of said preform in such a way that interference

5 between said ring and said portion of said preform prevents dislodgement or removal of said
6 attachment object.

25.

1 The preform assembly set forth in claim 24 wherein said ring is in surface press fit
2 engagement with an external surface of said preform.

26.

1 The preform assembly set forth in claim 24 wherein said ring is received over one or
2 more attachment features on an external surface of said preform.

27.

1 A finish on a hollow plastic preform or container, which includes:
2 a radially outwardly projecting circumferential flange,
3 an external protrusion spaced from said flange, and
4 an attachment object that includes an annular ring captured between said protrusion
5 and said flange.

28.

1 The finish set forth in claim 27 wherein said attachment object is selected from the
2 group consisting of a handle, a label and a shroud.

29.

1 The finish set forth in claim 27 wherein said protrusion is selected from the group
2 consisting of a retention bead and an array of retention gussets.

30.

1 The finish set forth in claim 27 wherein said annular ring is circumferentially split
2 or circumferentially continuous.